

What is claimed is:

1 1. A mobile telephone device comprising:
2 a central processing unit;
3 a display controller;
4 a display; and
5 a volatile memory shared by said central processing unit and
6 said display controller via a bus;
7 wherein said central processing unit operates in sync with a
8 variable synchronizing signal; and
9 wherein said display and said display controller operate in sync
10 with a fixed synchronizing signal.

1 2. The mobile telephone device in accordance with claim 1, wherein
2 said display controller voluntarily reads data out of said
3 volatile memory at regular intervals.

1 3. The mobile telephone device in accordance with claim 2,
2 comprising:
3 illumination means switchable between on and off for illuminating
4 said display; and
5 illumination control means for controlling said illumination
6 means, said illumination control means including means for
7 putting said illumination means out after a given period of time.

1 4. The mobile telephone device in accordance with claim 1, wherein
2 said variable synchronizing signal is set at a lower frequency
3 than a frequency in a normal operating state in the absence of
4 operator's operation or call-in for a certain period of time,

5 and is returned to the frequency in the normal operating state
6 in response to operator's operation or call-in in the low
7 frequency state.

1 5. The mobile telephone device in accordance with claim 4, wherein
2 said display controller reads data out of said volatile memory
3 in a predetermined cycle of time voluntarily

1 6. The mobile telephone device in accordance with claim 5,
2 comprising:
3 illumination means switchable between on and off for illuminating
4 said display; and
5 illumination control means for controlling said illumination
6 means, said control means including means for putting said
7 illumination means out after a given period of time.

1 7. A method of controlling display images of a mobile telephone
2 device, comprising:
3 a normal processing step of performing application processing;
4 an image display step of refreshing an image display;
5 an input supervisory step of determining the presence or absence
6 of an external input;
7 a variable synchronizing signal adjusting step of changing a
8 variable synchronizing signal which functions as a criterion
9 when said input supervisory step performs application processing
10 of an external input; and
11 an arbitration step of arbitrating the use of a bus on the basis
12 of priority if said normal processing step and said image display

13 step conflict;
14 wherein said image display step performs the image display
15 processing via a bus, using the display data stored in a volatile
16 memory via said bus.

1 8. The method of controlling display images in accordance with
2 claim 7, wherein said arbitration step gives priority on said
3 image display step in execution even if said input supervisory
4 step recognizes an external input.

1 9. The method of controlling display images in accordance with
2 claim 7, wherein said arbitration step gives priority on said
3 image display step in recognizing that said normal processing
4 step in execution competes with said image display step.

1 10. The method of controlling display images in accordance with
2 claim 7, wherein said arbitration step gives priority on said
3 image display step in recognizing that said image display step
4 in execution competes with said normal processing step.

1 11. The method of controlling display images in accordance with
2 claim 7, wherein said variable synchronizing signal adjusting
3 step slows down said variable synchronizing signals if said input
4 supervisory step recognizes that there is no external input for
5 a certain period of time when the variable synchronizing signals
6 are at high speed, and speeds up said variable synchronizing
7 signals if said input supervisory step recognizes an external
8 input when said synchronizing signal is at low speed.